

Notice of Allowability

Application No.

09/677,334

Examiner

Fred Ferris

Applicant(s)

BAX, ERIC T.

Art Unit

2128

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 5 February 2007.
2. ☒ The allowed claim(s) is/are 8 and 9.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

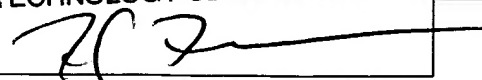
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date 7/9/04
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 20070221
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

FRED FERRIS
PRIMARY EXAMINER
TECHNOLOGY CENTER 2100



DETAILED ACTION

1. *Claims 1-9 have been presented for examination based on applicant's amendment filed 5 February 2007. Applicants have now cancelled claims 1-7. New claims 8 and 9 remain pending in this application and have now been allowed over the prior art of record.*

Response to Arguments

2. Applicant's arguments filed 28 July 2006 with respect to claims 8 and 9 have been fully considered and found to be persuasive. The previous rejection/objection of claims 1-7 are now moot in view applicants' cancellation of the claims.

EXAMINER'S AMENDMENT

3. *An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.*

Authorization for this examiner's amendment was given in a telephone interview with Mr. Eric Bax on 21 February 2007.

The application has been amended as follows:

In the Title of the Invention (Specification page 1, line 2):

Insert the phrase "Function Approximation by" after the word "Validation" and before the word "Fusion". The Title of the Invention should now read:

"Validation of Function Approximation by Fusion"

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In the **claims** (claim 9, line 1):

Insert the phrase “readable medium” after the “computer,” and before the phrase “that when”, and insert the word “executed” after the word “when” and before the word “on”.

Claim 9, line 1 should now read as:

“9. A program, stored on a computer readable medium, that when executed on a computer produces...”

Allowable Subject Matter

4. *Claims 8 and 9 are allowed over the prior art of record.*

The following is an examiner's statement of reasons for allowance:

Applicants are disclosing a method for evaluating how well a hypothesis function approximates a target function in forming a validation where basis functions are combined in developing the hypothesis function with the method steps forming sets of variables corresponding to input set partitions by range of target function, forming sets constraints by corresponding sets of basis functions and constraining target values functions by one value per input target function. This has been disclosed in the prior art of record.

However, the prior art does not disclose the specific combination of method steps including, solving inputs that maximize the error of the hypothesis function, and computing the hypothesis function error implied by the solution to the optimization problem (i.e. fusion), as now required by independent claims 8 and 9 in combination with the aforementioned method steps disclosed in the prior art.

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The closest prior art uncovered during examination teaches certain limitations of the claimed invention as follows:

"New Error Bound for the Classifier Chosen by Early Stopping", Bax et al (Of Record): teaches partitioning sample data into validation set and evaluating the error rate. However, Bax does not explicitly disclose the specific combination of method steps including solving inputs that maximize the error of the hypothesis function, and computing the hypothesis function error implied by the solution to the optimization problem (i.e. fusion), as now required by independent claims 8 and 9 in combination with the aforementioned method steps disclosed in the prior art.

"Partition-Based Uniform Error Bounds", Bax: teaches partition-based error bounds for classifiers using single set in-sample data. However, Bax does not explicitly disclose the specific combination of method steps including solving inputs that maximize the error of the hypothesis function, and computing the hypothesis function error implied by the solution to the optimization problem (i.e. fusion), as now required by independent claims 8 and 9 in combination with the aforementioned method steps disclosed in the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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Conclusion

5. *Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred Ferris whose telephone number is 571-272-3778 and whose normal working hours are 8:30am to 5:00pm Monday to Friday. Any inquiry of a general nature relating to the status of this application should be directed to the group receptionist whose telephone number is 571-272-3700. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamini Shah can be reached at 571-272-2279. The Official Fax Number is: (571) 273 8300.*

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February 21, 2007*

DETAILED ACTION

1. The reply filed on 6 December 2004 is not fully responsive to the prior Office Action because of the following omission(s) or matter(s): (See 37 CFR 1.111)
2. Applicants have added new claims without indicators and numbering as required by 37 CFR 1.121 and 37 CFR 1.126.

37 CFR 1.121(c) recites the following:

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“(c) Claims . Amendments to a claim must be made by rewriting the entire claim with all changes (e.g., additions and deletions) as indicated in this subsection, except when the claim is being canceled. Each amendment document that includes a change to an existing claim, cancellation of an existing claim or addition of a new claim, must include a complete listing of all claims ever presented, including the text of all pending and withdrawn claims, in the application. The claim listing, including the text of the claims, in the amendment document will serve to replace all prior versions of the claims, in the application. In the claim listing, the status of every claim must be indicated after its claim number by using one of the following identifiers in a parenthetical expression: (Original), (Currently amended), (Canceled), (Withdrawn), (Previously presented), (New), and (Not entered)”

Specifically, applicants appear to be attempting to draft new claims and cancel all previously submitted claims. However, as presented, applicant's amendment has now cancelled claims 1-7 inclusive of what appears to be new claims 1 and 2.

37 CFR 1.126 Numbering of claims, recites the following:

The original numbering of the claims must be preserved throughout the prosecution. When claims are canceled the remaining claims must not be renumbered. When claims are added, they must be numbered by the applicant consecutively beginning with the number next following the highest numbered claim previously presented (whether entered or not). When the application is ready for allowance, the examiner, if necessary, will renumber the claims consecutively in the order in which they appear or in such order as may have been requested by applicant.
[32 FR 13583, Sept. 28, 1967; revised, 62 FR 53131, Oct. 10, 1997, effective Dec. 1, 1997]

3. Since the above-mentioned reply appears to be *bona fide*, applicant is given **ONE (1) MONTH or THIRTY (30) DAYS** from the mailing date of this notice, whichever is longer, within which to supply the omission or correction in order to avoid abandonment.

EXTENSIONS OF THIS TIME PERIOD MAY BE GRANTED UNDER 37 CFR 1.136(a).

Conclusion

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4. The examiners previous Office Action of 8 April 2004 is hereby incorporated by reference.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred Ferris whose telephone number is 571-272-3778 and whose normal working hours are 8:30am to 5:00pm Monday to Friday. Any inquiry of a general nature relating to the status of this application should be directed to the group receptionist whose telephone number is 571-272-3700. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamini Shah can be reached at 571-272-3780. The

Official Fax Number is: (571) 273-8300

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